Appendices

Focus Area C

Washington State Exercise Report

For FDA Regional Food Security Exercise

Overview and issues

A state coordinator for this exercise was not identified until a few work days before the exercise (I was asked to be a controller on April 3rd, and had only Friday, April 4th to coordinate play, as I was already scheduled to facilitate an internal tabletop exercise on Monday, April 7th). In addition, after reading the "controller" responsibilities and clarifying the role with Ana Marie, I realized that the expected function was state-wide coordinator for this exercise, not controller for agency play.

This limited the exercise quality to some extent, as some key Department of Health staff had full schedules since the notice was so short. I was also unable to arrange for us to get together at a common facility for the exercise, and we played at our individual facilities, Department of Health staff in Seattle and Department of Agriculture staff in Olympia. To some extent, this was more realistic than doing a tabletop in the same room, as we were able to test our communications. I was unable to coordinate participation of local health officials or federal agency staff on such short notice.

Agriculture food safety staff used routine trace-back/recall procedures in concert with Department of Health Epidemiology staff to try and determine the source of the illness. They were frustrated by not receiving the level of Epi-data that they would routinely have in a situation like this (they wanted a lot more detail). They were focusing on pre-packaged food ready-to-eat, like juice packets, but did not zero in on salt packets.

Our players felt that artificialities in this scenario made it difficult to determine the source of the contamination. Our pesticide expert said that aldicarb is brownish with black specks and has a very bitter taste, so would not likely be mistaken for salt and would likely be detected by the user. Aldicarb is very toxic, and the reaction from even a small dose is quite immediate, (1998 Louisiana black pepper poisoning median time for symptoms was 45 minutes, range from 40 minutes to 3 hours from the beginning of the meal; 1985 Alaska poisoning from eating California watermelon contaminated with 3 ppm aldicarb, severe symptoms occurred in less than one hour). It is unlikely that the batch of contaminated salt would have been distributed in such a compact and timely fashion.

Overall, this exercise was very beneficial to us. The scenario guided us through a lot of procedural exploration and brain storming, and was a lot of fun besides. Agriculture staff from our Pesticide division worked with staff from our Food Safety program in an emergency scenario for the first time. Health and Agricultural staff were able to reinforce their working relationship. This was a good exercise in team building as well as an exploration of our emergency procedures.

Players:

Washington State Department of Health

Eric Thompson – Public Health Laboratory

Marcia Goldoft – Epidemiology

Kathy Lofy – Epidemiology

Also consulted were DOH Food Safety and Pesticide Program staff.

Washington State Department of Agriculture

James Wood – Coordinator/Controller

Kathy Kravit-Smith – Food Safety, Animal Health & Consumer Services Division Assistant Director

Diane Dolstad – Food Laboratory

Jim Pressley, Julie Carlson, Kerrie Pfalzgraf, Claudia Coles, Dan Jemelka – Food Safety staff

Bill Brookreson – Deputy Director and Emergency Operations Coordinator

Ann Wick – Pesticide Program Manager

Linda Condon – Recorder

HANDOUT 4 – EXERCISE EVALUATION FORM - CONTROLLER

Controller: James Wood
Date: __4__/_8__/__03__ Time: __5_:_00__pm
Location: Olympia, Washington

Use this worksheet to record issues raised during this Exercise and evaluation points.

Clarification Points
Planning/Procedure Needs Should have done regular conference calls with FDA and affected state agencies. Should have better emergency response role definition. Need an updated contact list. Currently updating recall procedures and training.
Training Needs Should provide emergency response training for some non-traditional response staff, like those from Pesticide Division. Need criminal investigation training. Need evidence handling training.
Resource Needs Additional phone lines and copier in incident room
Exercise Strengths Good communications & teamwork Scenario information flow was good (everything on time) Scenario made us explore our procedures and discuss many possibilities.
Exercise Weaknesses Scenario realism Lack of Epi data
Exercise Recommendations for Improvement

Focus Area C

Incident Update # 1

At 9 am on 24 March 2003, Alberto Rodriguez, MD, (Director of the Pesticide Poisoning Prevention Program at the Oregon Health Department) notes that there appears to be a disease cluster or outbreak of 22 pesticide intoxication cases reported in three small cities near the California border and another cluster of 49 intoxications near Portland. Dr. Rodriguez asks his staff to gather further information about the reported cases by working with the respective local health departments in each area. In the interim, Dr. Rodriguez sends out an e-mail asking his counterparts at other pesticide poisoning programs, in Arizona, California and Washington, if they are detecting any unusual increase in reported pesticide intoxications. Dr. Rodriguez is told by his staff that the cases are presenting with varying degrees of severity but that all appear to have symptoms that are either gastrointestinal, neurological or a combination of both.

QUESTIONS – INCIDENT UPDATE # 1

Instructions: These questions serve to focus your thoughts on the issues associated with this portion of the scenario. Please review each question and answer as appropriate.

1) You are the staff person in charge of contacting the local health departments, what sort of questions would you ask about the intoxications already reported?
    a. Demographic characteristics – gender, age, location, occupation and hobbies likely to cause exposure, any activities or behaviors in common including foods
    b. Clinical information – detailed description of clinical symptoms, severity, how rapidly symptoms are progressing, suspect agent, possibility of contaminating health care providers seeing the patients, tests done to determine the diagnosis
2) Has Dr. Rodriguez contacted all the necessary governmental groups at this point? If this occurred in your state or territory, what contacts would you make?
    a. Washington Poison Center for case reports
    b. Washington State Department of Health, Environmental Health Pesticide Program for case reports
    c. Local health jurisdictions particularly counties adjacent to Oregon for case reports
    d. Depending on circumstances (if this is not an occupational exposure) would contact CDC
    e. If occupationally linked, would contact State Department of Agriculture and State Department of Labor & Industry
    f. Offices within the State Department of Health – media, Secretary of Health, etc.
3) Discuss the next steps you would take if you were the Director.
    a. Verify the diagnosis
    b. Contact poison control centers and hospital emergency departments to increase case finding
    c. Obtain laboratory tests to confirm the diagnosis
    d. Interview cases to identify common factors (work, food, travel)
    e. Make sure health care providers are not contaminated

Focus Area C

Incident Update # 2

BY NOON ON 24 MARCH 2003, THE DIRECTORS FROM THE OTHER THREE PESTICIDE POISONING PROGRAMS HAVE NOTIFIED DR. RODRIGUEZ THAT THEY TOO ARE SEEING CLUSTERS OF REPORTED PESTICIDE INTOXICATIONS IN SELECTED AREAS OF THEIR STATES. MORE DETAILED INFORMATION ON THE CASES ARE NOW AVAILABLE.

THERE HAVE BEEN 264 PESTICIDE INTOXICATION CASES REPORTED WITH 61% BEING MALE AND RANGING IN AGE FROM 1 TO 69 YEARS (17.5% ARE LESS THAN 5 YEARS OLD, 22.7% ARE 5 UP TO 17, 49.6% ARE 18 UP TO 65, AND 10.2% ARE 65+). THE ILLNESS HAS MANIFESTED ITSELF MORE SEVERELY AMONG THE CHILDREN. THE SYMPTOMS AND PHYSICAL SIGNS SEEN AMONG THE MILDER CASES INCLUDED HEADACHE, NAUSEA, DIZZINESS, RUNNY NOSE, AND INCREASED SWEATING, TEARING AND SALIVA PRODUCTION. IN THE CHILDREN AND THOSE ADULTS WITH MORE SEVERE ILLNESS, THERE WERE ADDITIONAL COMPLAINTS SUCH AS MUSCLE TWITCHING, WEAKNESS, TREMOR, VOMITING, ABDOMINAL CRAMPS, DIARRHEA AND LOSS OF COORDINATION. FURTHERMORE, PINPOINT PUPILS WERE OBSERVED IN THE MORE SEVERE INTOXICATIONS. SOME OF THE CASES HAVE BEEN TREATED AT HOSPITALS AND THERE HAVE BEEN AT LEAST TWO FATALITIES (BOTH IN CHILDREN LESS THAN 5 YEARS OF AGE).

A LISTING OF THE REPORTED CASES HAS BEEN CREATED:

STATE	# CASES	CITY WHERE CASE BECAME ILL	# CASES	# MILD cases	# SEVERE CASES	# SENT TO HOSPITAL	# DEATHS
ARIZONA	71	PHOENIX	71	50	21	10	2
CALIFORNIA	92	PALM SPRINGS	42	30	12	6	0
		Riverside	50	35	15	10	0
OREGON	71	ASHLAND/MEDFORD/TALENT	22	12	10	4	0
		Portland	49	33	16	9	0
WASHINGTON	30	SPOKANE	30	20	10	5	0

On the 5 pm evening news hour of the major television stations, there is an announcement of a potential "pesticide-related epidemic" affecting the Western United States.

QUESTIONS – INCIDENT UPDATE # 2

Instructions: Please review each question and answer as appropriate.

1) Based on the information you have been provided, what is your tentative case definition (what type of pesticide intoxication do you think this could represent)? What other critical information do you need to obtain in order to confirm the true cause of this disease outbreak?
    a. Organophosphate or carbamate poisoning – the case definition will be a person with onset since March 20th of an illness requiring medical attention and having two of the following: increased sweating, increased tearing, increased saliva, muscle twitching, tremor, loss of coordination, or pinpoint pupils
    b. Initial diagnosis is clinical
    c. If available, run urine toxicology screen for pesticides and blood cholinesterase levels at Ag lab and FDA lab.
2) Is this a "pesticide-related epidemic" such as the news media suggest? If this were your state, how would you handle future media inquiries? Is there a need for any public announcements at this point?
    a. We will involve the media office and discuss with them the way to notify the public. In general we try to avoid the term "epidemic".

b. It is essential to obtain information about exposures 30 minutes to 2 hours before symptoms started. This is unlikely to be a farm worker problem, so there is possibly risk to the general public.
c. Immediate investigation of possible sources is needed to know what to tell the public.

3) Is there anything else you could do to better coordinate with the other groups both within your state, in other states and with the Federal agencies?
   a. Conference call with Department of Agriculture.

Incident Update # 3

It is the morning of 25 March 2003. More detailed interviews and, in some cases, physical exams and laboratory tests were conducted of as many of the original and new cases as possible. Some of the laboratory test results have been completed. In approximately half of the hospitalized cases (22 out of 44 cases), samples of gastric content and urine were sent to the CDC lab in Atlanta for detection of various pesticide compounds or metabolites. Aldicarb or its metabolite was present in all of these samples. The first symptomatic cases began as early as 18 March 2003. The following table shows the dates for onset of symptoms among the cases.

State	Number of cases per date of onset, Year 2003				
	18 March	19 March	20 March	21 March	22 March
Arizona	1	3	32	25	10
California			59	21	12
Oregon			49	14	8
Washington			21	5	4
Total	1	3	161	226	34

QUESTIONS – INCIDENT UPDATE # 3

Instructions: Please review each question and answer as appropriate.

1) What are your main concerns at this point?
   a. Cases occurred with more than a single exposure
   b. Cases are ongoing
   c. Source is unknown – Epi data need to be collected.
   d. Must consider that this is a deliberate contamination.
   e. All emergency departments will be notified of symptoms and treatment.
2) Based on your location (state, territory or FDA unit), are there other groups that you would like to notify and discuss the situation with?
   a. CDC
   b. DOH bioterrorism response group
   c. DOH Food Safety Group (there was a watermelon associated carbamate outbreak)
   d. FDA and USDA
3) From the information gathered thus far, are there any patterns that appear with respect to the development of this disease outbreak?
   a. This is not a single exposure. A contaminated product is a concern.
   b. Public announcement is needed.

Incident Update # 4

At 1 pm, 28 Mar 2003, a conference call was held with key representatives from all four affected states and the following Federal agencies: CDC, EPA, USDA, and FDA. It was decided to send a fax and e-mail to the state environmental epidemiologists for all U.S. states and territories describing the current situation (264 pesticide intoxications reported since 18 March and all are consistent with an aldicarb intoxication).

Below is the final listing for all 538 cases reported to date. Mild cases are those with two or more of the following symptoms: headache, hypersecretion (increased tearing, sweating, saliva and nasal discharge), muscle twitching, nausea, vomiting, diarrhea and miosis (pinpoint pupils). Severe cases are those with significant neurological, respiratory or cardiovascular complications.

STATE	# CASES	CITY WHERE CASE BECAME ILL	# CASES	# MILD cases	# SEVERE CASES	# HOSPITAL STAY	# DEATHS
ALASKA	60	JUNEAU	60	39	21	8	0
ARIZONA	71	PHOENIX	71	50	21	10	2
CALIFORNIA	92	PALM SPRINGS	42	30	12	6	0
		Riverside	50	35	15	10	0
GUAM	55	AGANA	55	33	22	12	1
HAWAII	48	HONOLULU	48	32	16	12	1
IDAHO	22	COEUR D'ALENE	22	18	4	2	0
MONTANA	39	MISSOULA	39	29	10	5	0
NEVADA	50	RENO	50	31	19	9	1
OREGON	71	ASHLAND/MEDFORD/TALENT	22	12	10	4	0
		Portland	49	33	16	9	0
WASHINGTON	30	SPOKANE	30	20	10	5	0

The following table shows the number of cases by date of illness onset and state where the case was reported. It was discovered that all of the cases in Alaska, Guam and Hawaii were associated with AirPacific flights originating in San Francisco.

State	Number of cases per date of onset				
	18 March	19 March	20 March	21 March	22 March
Alaska				60	
Arizona	1	3	32	25	10
California			59	21	12
Guam					55
Hawaii			48		
Idaho			18	4	
Montana			30	5	4
Nevada			40	8	2
Oregon			49	14	8
Washington			21	5	4
Total	1	3	297	142	95

QUESTIONS – INCIDENT UPDATE # 4

1) After this additional information, what are your areas of concern?
    a. Where are the Epi data?
    b. The pattern of distribution is western US and related areas. This suggests something perishable such as produce or a product with a shelf-life (vegetable, dip, juice, dairy product).

2) Are there any other groups that you would like to notify and discuss the situation with?
    a. Somebody with Epi data.
3) What patterns have emerged with all of this new information?
    a. If there are in fact no new cases, then it's very likely a short shelf-life product.

INCIDENT UPDATE # 5

By 5 pm, 25 March 2003, more details about the environmental factors of the cases are known. From extensive interviews with the affected individuals, guardians if children were ill, clinicians, and review of medical records, additional exposure data were obtained. It appears that all cases were potentially exposed at a restaurant chain with sites around the region (Alice's Restaurant), a series of mini-markets in three states (FoodMart), at work (agricultural setting) or on AirPacific flights originating from San Francisco.

STATE	# CASES	City	COMMON EXPOSURE FACTOR	DATE OF ONSET OF ILLNESS, 2003				
				18 MAR	19 MAR	20 MAR	21 MAR	22 MAR
ALASKA	60	JUNEAU	AIRPACIFIC				60	
ARIZONA	71	PHOENIX	FOODMART			30	25	6
			Pesticide applicator	1	3	2		4
CALIFORNIA	92	Palm Springs	Alice's Restaurant			31	10	
			Pesticide applicator					1
		Riverside	Farmworker			2		
			FoodMart			26	10	10
			Pesticide applicator				1	1
GUAM	55	AGANA	AIRPACIFIC					55
HAWAII	48	HONOLULU	AIRPACIFIC			48		
IDAHO	22	COEUR D'ALENE	ALICE'S RESTAURANT			18	4	
MONTANA	39	MISSOULA	ALICE'S RESTAURANT			30	5	4
NEVADA	50	RENO	ALICE'S RESTAURANT			18	3	
			FoodMart			22	5	2
OREGON	71	Ashland/ Medford/Talent	Alice's Restaurant			17	4	1
		Portland	Farmworker				5	2
			FoodMart			32	5	5
WASHINGTON	30	SPOKANE	ALICE'S RESTAURANT			21	5	4
TOTAL	538			1	3	297	142	95

QUESTIONS – INCIDENT UPDATE # 5

Instructions: Please review each question and answer as appropriate.

1) How can you explain the multiple exposure factors appearing to be related to the aldicarb intoxications?
    a. This suggests a perishable product with western US distribution. It could be produce or other product with a short shelf-life such as juice, dairy, fruit or vegetable-based.
    b. If it's U.S. grown, there isn't much being harvested in March – lettuce maybe. If it's an imported product, it could be almost anything.
    c. Agricultural exposures are interesting – could a legal product have been incorrectly labeled?

2) Depending on where you are located (state/territory/FDA unit), what are your next steps and which groups will you be working with on each task?
    a. We still need Epi data. People would have become ill within a few hours of consumption.
    b. Local health jurisdictions will continue interviews.
    c. State Epi will keep in touch with adjacent states, Canada, and CDC.
3) Does this appear to be a terrorist activity?
    a. Can't tell. The targets are multiple, relatively small (no big cities) and scattered, which somewhat argues against it being a terrorist activity.

INCIDENT UPDATE # 6

By 3 pm the next day, 26 March 2003, there have been over 18 separate field visits to the implicated restaurants, food markets and ground planes/food service and a selected number of work site visits. Many of the farmworkers were no longer available for interview and some of the pesticide applicators had no fixed place of business and were re-interviewed for further details on their work practices. Through the collaboration of many local, state and federal agency staff, this field work has been conducted in record time and some preliminary findings are now available. In addition, there are three separate on-going case-control surveys for each of the two chains (Alice's Restaurant and FoodMart) and one for the AirPacific crew and clients.

The field visits did not detect any unusual findings. None of the commercial establishments (FoodMart, Alice's Restaurant or the catering service for AirPacific) has aldicarb on site nor did they recall ever having such a pesticide on the premise, nor ordering any recent pest control work.

The three case-control surveys collected information on each person that included age, gender, date, time of onset of illness and symptoms (if a case), and extensive food and general environmental history. Unfortunately, none of the surveys were able to identify likely exposure items. Review of interviews with available cases or their guardians was conducted. It was decided to re-interview the parents of the deceased children who had presented with such severe symptoms.

QUESTIONS – INCIDENT UPDATE # 6

Instructions: Please review each question and answer as appropriate.

1) BY NOW THE PRESSURE IS INTENSE TO FIND THE CAUSE OF ALL THESE ALDICARB INTOXICATION. PEOPLE ARE AVOIDING EATING AT RESTAURANTS AND GOING ON PLANE TRIPS IN THE AFFECTED AREAS. THEY ARE DRIVING TO OTHER PARTS OF THE STATE TO BUY GROCERIES. STOCK PRICES FOR AIRPACIFIC, ALICE'S RESTAURANT AND FOODMART HAVE PLUMMETED. THE CEOS OF THE AFFECTED COMPANIES ARE DEMANDING A RETRACTION IN THE MEDIA FOR FALSELY IMPLICATING THEIR FIRMS WITHOUT PROOF. HOW CAN YOU DEAL WITH THIS ASPECT OF THE INVESTIGATION?

    Three or four days into an investigation it's unlikely we would have named any particularly sources. But since we don't know the cause yet, it's difficult to offer any specific advice. Of course the media office would be involved in risk communication. Our messages to the public would probably include the information that no new cases have been identified and that anybody with consistent symptoms should contact a health care provider immediately.

2) HOW DO YOU EXPLAIN THE LACK OF INFORMATION COMING FORM ALL THE FIELD WORK?

    This is a short incubation exposure. The histories should be giving _some_ clues.

    The LAST thing we would do is interview the parents of deceased children.

Possibilities are that a widely distributed product was only rarely contaminated. That would make most people using the product not actually exposed since the contamination is sporadic. We need to find out what all of the cases had as exposures.

Interviews of surviving cases would be repeated with a master list. Any item mentioned by any case would be listed, and then all cases reinterviewed. The questions should include foods, beverages, anything applied to the skin, medications, etc. We would look for an item reported by almost all cases.

A number of children have been affected who did not die. Local health departments would send somebody to the house to look at everything the child touched or used the day of illness – food, beverages, soap, lotion, medications (prescription and over the counter.) This is done for botulism cases. The same person visiting several homes might spot a common brand. Again, we're looking for an item that almost all cases had as an exposure just prior to onset.

Airlines have been affected. Their purchases are fairly limited – almost all prepared items ready to serve. That information could be cross-referenced to the restaurant and the food stores. In addition, the health status of the cabin crew and flight crews would be important. Were any pilots, copilots, or attendants affected? What did they eat, drink, touch differently from the other crew members?

3) WHAT ARE YOUR NEXT STEPS?

As above, we would reinterview cases, visit homes of cases, talk to airline crew, and look at purchasing records of the airline and restaurant.

The concentration of cases in a narrow time frame suggests a one-time contamination of a small lot of something used in a short time fram. This could have been accidental or deliberate.

Washington State Public Health Laboratory Current and Past Expertise in Performing Chemical Tests

The Washington State Public Health Laboratories' (WAPHL) existing testing capacity for analyzing chemical agents in clinical specimens includes the measurement of lead (Pb) in whole blood using the Atomic Absorption analytical technology. The laboratory uses a Graphite Furnace Atomic Absorption (GFAA) Spectrometer, the Varian model Spectra AA-300Z, with an auto sampler and a Zeeman background correction system. This system is equipped with Citizen/200GX, Model 30, for the instrument operation and data processing. The minimum detection level (MDL), achieved in the laboratory, using this method, is 0.5 ug/dl of lead. Most potential interferences, associated with analyzing lead, are eliminated due to the use of background correction and a matrix modifier. The current reporting level is 5 ug/dl which is ten times the method MDL. The Quality Assurance (QA) Plan for the blood test includes the Quality Control (QC) plan for performing this test, participation in external proficiency test programs and other requirements of general laboratory practice such as reporting results, specimen storage, specimen collection and handling, calibration of equipment for measuring weight and temperature. QC for performing the test includes:

1) QC for instrument calibration and performance;
2) 2) Procedural QC, that requires analysis of QC and matrix spiked samples.

The lab participates in three external blood lead PT programs:

1) Monthly program administered by HRSA at the Wisconsin State Laboratory of Hygiene;
2) Quarterly program administered by CAP;
3) Once a year Blood Lead Laboratory Reference System (BLLRS) program administered by CDC.

WAPHL is inspected and accredited by the College of American Pathologists (CAP) Laboratory Accreditation Program, an approved accreditation organization and by the Centers for Medicare and Medicaid Services (CMS), for performing blood lead test. The WAPHL meets CAP's highest standard of excellence and is in compliance with all requirements of Clinical Laboratory Improvement Amendments (CLIA) of 1988. The WAPHL, like all other clinical laboratories in Washington State, is licensed through the Washington State Medical Test Site Licensure Program that has been granted an exemption under CLIA. The WAPHL is in compliance with CLIA requirements and has a Medical Test Site License Number MTS-1327, and, in turn, a CLIA Number 50D0661453.

Since the issue of prevalence of elevated blood lead in Washington State is currently low, WAPHL has tested less than ten human blood lead specimens in the past twelve months. However, from 1994 through 1997, the laboratory analyzed an average of 300 blood lead specimens per year with 615 samples analyzed in 1996.

WAPHL is certified by EPA to perform chemical (organics and inorganics), microbiological, and radiological tests in drinking water and serves as a reference laboratory for the State Drinking Water Program for microbiological and radiological tests.

WAPHL is regularly inspected by FDA for performing tests of bitoxin agents in shellfish samples for the State Food Safety and Shellfish Program.

In the past, WAPHL, in collaboration with the University of Washington School of Public Health, participated in a special project monitoring the exposure of farm workers to organophosphate pesticides. For this project the laboratory tested a level of cholinesterase in red blood cells and in plasma using the Ellman method. The laboratory tested 370 blood specimens in 1995, the last year of the project.

Focus Area F

Washington State Public Health
Regional Emergency Communications Liaison Network

Purpose

The purpose of the Regional Emergency Communications Liaison Network is to provide additional statewide resources to improve the public health system's risk communication and public information capacities pertaining to emergency response. Emergency Communications Liaisons will:

- Provide local points of contact to Local Health Jurisdictions (LHJs) for emergency communication preparedness and response initiatives; provide related community input to State Department of Health (DOH).
- Provide additional emergency communication resources to existing state and LHJ public information offices, and support to LHJs without public information offices.
- Assist in disseminating critical public health information during an emergency.
- Assist in providing risk communication training and support to key staff.
- Develop related local resources and assist in coordinating development of statewide resources (*Community and Agency Communications Partner Matrix*).
- As part of the communications liaison team, create ongoing outreach initiatives to the general public and special populations on topics related to emergency preparedness.
- Help ensure coordination of public health messages and communication efforts between state, regional and local sources on topics related to emergency preparedness.

*(**Note:** Emergency Communication Liaisons work in coordination with existing public information offices, as appropriate. These positions are not intended to replace the authority of existing public information offices or state/regional/local administrative structures.)*

Liaison Network Structure

The Regional Emergency Communication Liaison Network serves all public health regions in Washington State and consists of: two DOH staff (the Communication Systems Manager-Focus Area F Lead, and the State Emergency Communication Liaison); and three staff from host LHJs (Regional Emergency Communication Liaisons). Regional responsibility:

- Western Regions (2, 3, 5, 6) – Host LHJ: **Seattle-King County** *(started 4/03)*
- Eastern Region (9) – Host LHJ: **Spokane County** *(projected start 6/03)*
- South/Central Regions (4, 8) – Host LHJ: **Clark County** *(projected start 7/03)*
- North/Central Regions (1, 7) – Host: **WA State DOH** *(currently on staff)*

Revised: June 10, 2003

Appendix G-1:

Statewide Training Needs (based on LHJ Assessment)

FOCUS AREA F

Priority 1	***Communications***
(by Topic)	*Region*
Risk Communications	1, 2, 3, 7 (x4), 8(x4),
Health risk communication	4
High risk communication	9/10
Effective communication via phone banks, Nextel phones	4
Templates for BT PSAs	7
EOC Setup role	7
Communication during incident/risk command	5
General Communications	1, 2 (x2), 5, 9/10 (x2)
Communication coordination training	4
PIO training	7
Knowing who to contact	5
Talking points preparation	7
Media Message templates	8
Media training	9/10 (x2)
Communications Plan	8

FOCUS AREA A

Priority 2	**Weapons of Mass Destruction**
(by Topic)	*Region*
BT Training	
• Biological and chemical agents and risks	7 (x2),
• All hazards awareness training	3, 4
• All hazards-including radiation response training	1, 7
• Training on use of personal protection equipment	4
• Response training	9/10 (x3)
• Methods of mass destruction	1(x3), 4, 7
• Preparing for escalation of violence	9/10
• Environmental health issues	7

Local EM drills/exercises • Tabletop exercises • Exercise design Multi agency trainings (tabletop and full drill)	9/10 1, 2 8, 9/10 2
Emergency preparedness 101 • BT training – all staff • How to respond/staff to a PH Emergency (2) • Agency and individual response training • Identification of roles/responsibilities and understanding the emergency response plan (2) • Personal safety and protection	9/10 2 9/10 9/10 1, 3, 5, 8 1
Incident command • Command center training • Incident command/EOC interface • Unified command	1, 3, 4(x2), 5, 9/10 (x3) 1, 7, 9/10 (x2) 1

Priority 4	**Plan Development**
LHJ Implementation plan	2
Preparing for escalation of violence	9/10
Disaster Planning	9/10
Emergency preparedness and response plan development	2, 8
Creating family emergency plan	5, 9/10

Priority 6	**Agency Partnerships**
Cooperation with other agencies	
Regional PH BT response training-integration with hospitals and providers	2
Roles of other agencies in an emergency	
Public Health integration into county wide emergency response	2
USAMIRDS	

FOCUS AREA B

Priority 3	**Epi Concepts**
(by Topic)	*Region*
Epi and Surveillance training	
Epi-in-Action training	
Emergent disease	

Priority 7	***Statistics Training***
Data Analysis	
Stats software	
SPSS	
Sampling Techniques	
Using statistical tools	

Priority 8	**Communicable Disease Competency**
CD Investigation	
Cross Training for CD/Immunization	
Critical Incident Debriefing	

FOCUS AREA G

Priority 5	***Basic Public Health Practice***
(by Topic)	*Region*
General Public Health 101 for first responders	
Role of public health in emergency	
How to mobilize the workforce	
Legal authority and issues	

Miscellaneous	
(by Topic)	
• Coordinating mass immunization	
o Administering smallpox vaccine	
o Mass medication dispensing system	
o Mass immunization	
• Case Investigations and Specimen collection	
• Foodborne Illness investigation	

LHJ PHEPR Capacity Assessment
Focus Area G Preliminary Analysis
May 2003

Training Program and Assessment Capacity

Finding #1: Most LHJs have no policies, procedures, or competency assessment tools nor do they document training that is provided indicating that there is probably little infrastructure to support education and training activities.

Most LHJs (22) indicate that they have no formal training program to train LHJ staff and that no training has occurred with partners (24). In most LHJs, there are no methods to assess competency (28) nor has there been any assessment to determine performance gaps (32). Most LHJs (28) also do not have plans to address PHEPR training.

Only 4 indicate that they have written policies describing employees' professional responsibility in the event of a PH emergency and of these 4, only 2 indicate that their local boards of health have reviewed and approved their policies. Most LHJs (29) have not explained PHEPR LHJ expectations or professional responsibilities to employees nor have they assisted employees with producing family plans 26).

In contrast to emergency preparedness training, 23 LHJs indicated that they provide staff with disease outbreak investigation and response training, while 11 indicated that they do not. Far fewer LHJs document the training (12).

Types of LHJ Employees

Finding #2: The most common types of employees in LHJs are nurses and environmental health specialists.

Of the types of employees listed 100% of LHJs have nurses and environmental health specialists. Health educators (61.8%) are the next most common type of employee in LHJs. Programmers (20.6%) are the least common type of employee. About a third (30 %) have epidemiologists, CD investigators (38%) and data analysts (38%).

The most common type of employee working with CD surveillance and investigations are the CD investigators (100%), followed by epidemiologists (43%) and environmental health specialists (24%). About a quarter of data analysts (23.5%) are engaged while only 14 % of nurses and 10.1 % of health educators appear to be doing this kind of work. The least common employees are programmers (4.7%).

Technology Capacity

Finding #3: Most LHJ staff have their own phones and voice mail as well as email, providing the opportunity to access various forms of distance learning.

Most LHJs have on site access to learning support resources such as meeting rooms, speaker phones, laptops with Power Point software, projectors, VCRs etc. They also have access to videoconferencing, cable TV, and satellite downlink sites, but these are often off site. (range is 20-25)

Most LHJ staff have access to their own phones (28), with long distance capacity (30) and voice mail (21). Most also have access to conference calling and speaker phones although not at the 100 % level.

In 24 LHJs, at least 90% of staff have computers with high speed internet and 100 % of staff in 26 LHJs have their own email addresses. However in only 15 LHJs, do 90% of staff have computers with audio/soundcards. Even less (11 LHJs) have 90% of staff with speakers. One important learning implication may be that audioconferences and web based applications will be a better medium to reach most LHJ staff quickly and simultaneously.

Finding #4: The most common barrier to distance learning cited by LHJs were lack of satellite receivers.

The most common barriers to use of distance learning technology cited are lack of satellite receivers, lack of availability of large screen TVs (14 respectively), limited equipment availability (13) and site availability due to distance to the site (12). While 9 indicated limited or outdated computer technology, about the same number indicated (8) parking as a barrier. The least common barriers are access for people with disabilities and inadequate number of phone lines.

Priority Organizational Training Needs

1. Communications
   The most common category of need cited is communications (33). Within this category the most common area of focus is risk communication (21). Other areas of focus include general communications training (5), communications coordination training (1), PIO training (2), media training and talking points (3) and communication during incident/risk command (1).

2. Weapons of Mass Destruction
   The second most common category is WMD training (25) that focuses on emergent situations, biological and chemical agents, all hazards-including radiation, response training etc. (15). Also within this category are needs cited for drills/exercises (6), emergency preparedness 101 (7), and incident command (9).

3. Epi Concepts
   The third most frequent category (14) includes epi and surveillance training (12), epi in action (1) and emergent disease (1).

4. Plan Development
   This category (9) includes creating family emergency plans (2), LHJ implementation, disaster, emergency or response plan development (4), and staff training plan development (1).

5. Basic Public Health Practice

This category (12) includes the role of public health in an emergency (4), general PH 101 for first responders, how to mobilize the workforce (1), basic PH practice (1) and legal authority issues (7).

6. Agency Partnerships
   Within this category (8) are areas that focus on cooperation with other agencies (2), county wide and regional integration with hospitals and providers for BT training and emergency response (4)), and USAMIRIDS.

Other categories that were less frequent but important to note are CD competency (5), statistics training (7) and coordinating mass immunization (4)

Hospital EPR Capacity Assessment
Education/Training Preliminary Analysis
May 2003

Training Program and Assessment Capacity

Finding #1: Most hospitals do not have *written* training plans for EPR but do provide training on EPR roles and responsibilities.
Most Hospitals (66%) indicate that they have a plan to train staff to respond to a health emergency. However, only 22% of the hospitals responded that the plan is written, indicating that 78% have no written training plan to address large-scale health emergencies.

Most hospitals (only 11% indicated that no program exists) train staff about roles and responsibilities using a variety of training practices. The most common strategies are usually verbally communicated with only continuing education and exercises/drills with employees documented in writing by more than 50%:

- Practice sessions/drills with employees (81%)
- Staff Meetings (72%)
- New Employee Orientation (69%)
- Continuing Ed (61%)
- Practice sessions/drills with partners (59%)

Finding #2: Most hospitals have conducted EPR training with external agency partners but not with LHJs.
Only 21% of hospitals indicate that they have not conducted any emergency response training. The most frequent partners are fire departments (74%) and EMS (72%) followed by law enforcement (66%). Other than veterinarians (4%) and school nurses (7%), *local health jurisdictions are the least frequent partners* (15%) cited for emergency response training. Virtually all (85%) hospitals indicated that they formally document this kind of training and appear to conduct the training at least once a year.

Finding #3: Most hospitals have not assessed staff competency to perform EPR tasks as tools for determining EPR performance gaps.
While 53% indicate that they have a method to assess staff competency to perform tasks, roles and responsibilities assigned to them in an emergency, only (29 %) have a written method to do so. An additional 23% have a method that is not written and an additional 15% are developing methods. However, approximately 1/3 (34%) indicated that no methods exist or are underway.

Although there are methods for competency assessment, most hospitals do not appear to be using them to determine gaps for primary (65%) or back up staff (77%) in emergency response.

Resource Availability

Finding #4: Most hospitals have access to learning support services on-site.
Most hospitals (78%) receive learning support services through hospital training or continuing ed coordinators and 31% cited hospital librarians as learning support service providers.

Approximately a third (30%) reported EMS council staff as source for this support but 42% cited receiving this support through telemedicine staff outside the hospital site.

Technology Capacity

Finding #5: Approximately half of medical clinical staff have their own phones, or email accounts making the availability of several distance learning technologies more important. Most hospitals have on site access to resources such as meeting rooms, speaker phones, laptops with Power Point software, cable TV, VCRs etc. (range is 88%- 99%) They have more limited access to videoconferencing (64%) and satellite downlink sites (50%) (with an additional 33% for recording only). Given the relative inexpensive nature of LCD projectors and the increasing importance of them as training tools, it is of interest that 21% of hospitals do not report having access to one.

While 83%of hospitals have long distance capacity, 72% have conference calling and 69% have speakerphones, only 55% of clinical medical staff have their own phones with only 42% having their own extensions or phone numbers and even fewer (35%) with their own voice mail.

More clinicians (68%) have access to computers with high speed internet, but only 57% have their own email accounts (slightly more than have phones). Only 42 % of computers have audio soundcards and 41 % have speakers.

Slightly less than half (46%) of hospitals are members of telemedicine networks. These networks vary in the technological capacity available. Most (41%) have land-based 2 way compressed video-conferencing systems and PC/Internet connectivity (25%). An additional 17% report satellite downlink and 5% report uplink capacity. Only 5% of hospitals who are members of telemedicine networks report not using the network for distance learning purposes and 8% report that there are policies that prevent external entities from scheduling use of the network(s) for distance learning activities.

While hospitals did not cite barriers to use of distance learning, it appears that there are some significant challenges for using any one learning strategy to reach the majority of clinical medical hospital staff, since a significant number don't have their own phones, email or PC's let alone access to land based video or satellite conferencing.

Priority Organizational Training Needs

7. Decontamination, Isolation, Quarantine and Evacuation Issues (64)
   Priority #1 20
   Priority #2 38
   Priority #3 12
   Priority #4 2
   Priority #5 2

8. Identification, Management and Treatment of Chemical/BT Agents (45)
   Priority #1 14
   Priority #2 12
   Priority #3 14
   Priority #4 12
   Priority #5 4

9. Personal Protective Equipment (PPE) Issues (39)
   Priority #1 12
   Priority #2 12
   Priority #3 7
   Priority #4 6
   Priority #5 2
10. Training Resources –Backfill funds, subsidies for registration/attendance; FTEs, Multi-media Center etc.(28)
   Priority #1 12
   Priority #2 5
   Priority #3 3
   Priority #4 4
   Priority #5 4

11. Multi-Agency Coordination/Drills/Exercises (25)
   Priority #1 5
   Priority #2 2
   Priority #3 9
   Priority #4 4
   Priority #5 5

Priority Equipment Needs for Training

1. LCD Projectors (36)
   Priority #1 9
   Priority #2 12
   Priority #3 6
   Priority #4 4
   Priority #5 5

2. Laptops (34)
   Priority #1 13
   Priority #2 15
   Priority #3 0
   Priority #4 4
   Priority #5 2

3. Curriculum in various formats (32)
   Priority #1 7
   Priority #2 9
   Priority #3 6
   Priority #4 6
   Priority #5 4

4. PC's with sound cards/speakers (31)
   Priority #1 10
   Priority #2 8
   Priority #3 3
   Priority #4 1

Priority #5 5

5. Satellite Downlink Equipment (27)
   Priority #1 9
   Priority #2 3
   Priority #3 7
   Priority #4 3
   Priority #5 5

6. Land-based Video Conferencing Equipment (24)
   Priority #1 4
   Priority #2 8
   Priority #3 3
   Priority #4 6
   Priority #5 3

Focus Area G

WAPHTN Statistics
September 1, 2002 – April 30, 2003

Satellite Broadcast Statistics

Number of Broadcasts Downlinked: 42
Number of Broadcast Downlink Sites Registered: 331
Number of Participants Trained Through Satellite Broadcasts (details below): 2,566

Organization Type	*No. Attendees*
Academic Institution College/University	*75*
Community Clinics	*2*
DOH Offices / Programs	*150*
Emergency Preparedness & Response Region	*60*
Hospitals / Medical Centers	*392*
Local Health Jurisdiction serving <50,000	*766*
Local Health Jurisdiction serving >50,000	*680*
Military / Federal Offices	*361*
Other State Agency	*80*
Total	*2,566*

Classroom / Workshop Statistics

Number of Classroom / Workshops: 11
Number of Bioterrorism Related: 9
Other (Core Functions / Train-the-Trainer): 2
Number of Participants Trained Through Classroom / Workshop Instruction: 390

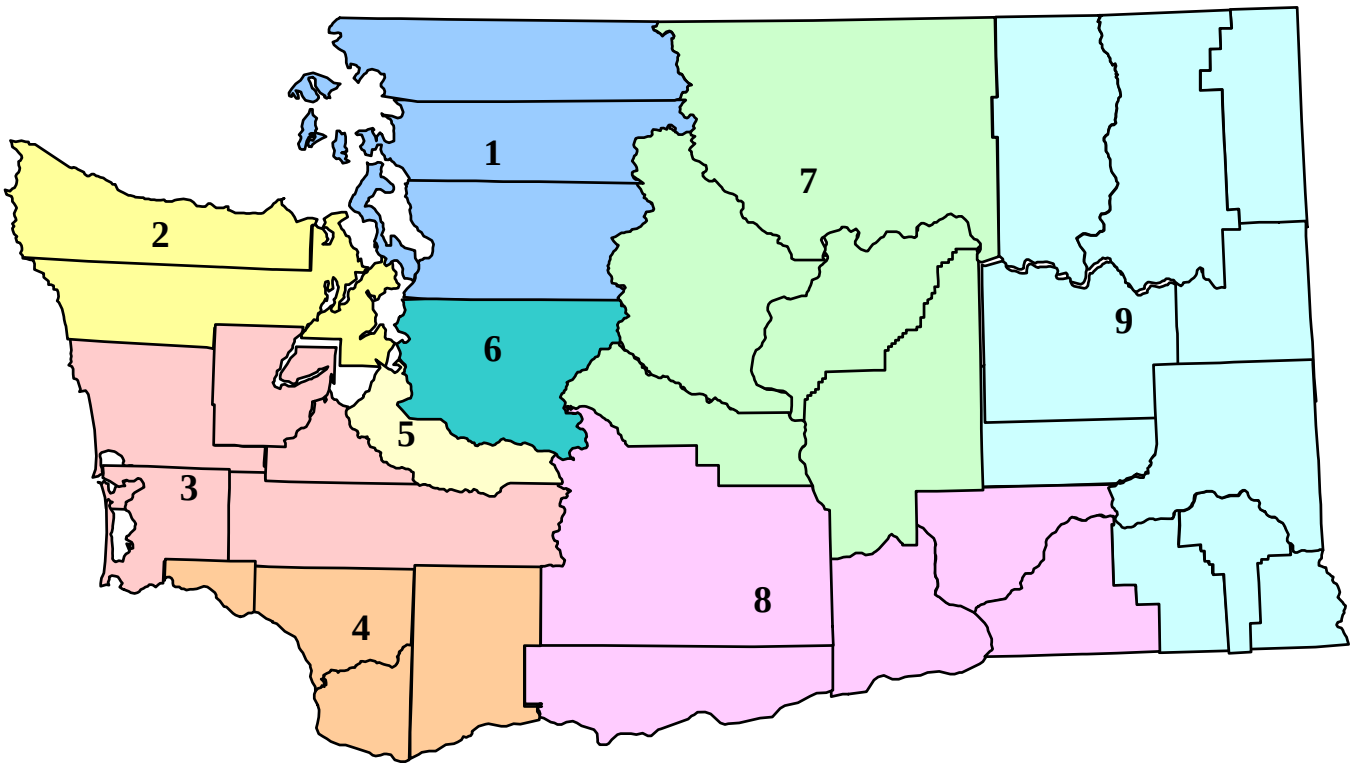
Regional Data Classroom/Workshop/Broadcast/Other Learning Technology Statistics

Region 1		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents, Terrorism)	282	Public health personnel, hospitals, Fire/EMS, Law enforcement, mental health professionals, DEM
Risk Communication		
Smallpox	203	Public Health and Hospitals
ICS Training	35	Public Health and Hospitals
Region 2		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)	51 hrs of training provided	Hospital personnel, US Navy, Naval hospital personnel, Fire, Law Enforcement, Emergency Mgmt, EMS, Mental Health, Local Tribes, regional public health staff & Local healthcare providers
Risk Communication		
Smallpox	Approx. 33 participants trained 52.5 hrs. of training provided	Hospital personnel, US Navy, Naval hospital personnel, Fire, Law Enforcement, Emergency Mgmt, EMS, Mental Health, Local Tribes, regional public health staff & Local healthcare providers
Region 3		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)	293	Regional Public Health staff, Tribal Clinic managers, School nurses, Police, EMS, County Commissioners, Community Groups, Volunteer Organizations, Medical Community Partners
Risk Communication	78	Regional Public Health Staff, DOH staff
Smallpox	404	Regional Public Health staff, Tribal Clinic managers, School nurses, Police, EMS, County Commissioners, Community Groups, Volunteer Organizations, Medical Community Partners
ICS Training	8	Regional Public Health Staff

Region 4		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)	1,281	PH Staff, Local Govt Staff, General Public, Restaurant Owners/Managers, Board of Health, Students, Hospital Staff, Physicians, ARC Volunteers, Terrorism Task Force, First Responders-EMS, Law Enforcement, Fire Depts, PIOs, etc., Legal Counsels
Risk Communication	62	PH Staff, Hospital staff-Physicians PIOs, Terrorism Task Force, First Responders
Smallpox	846	PH Staff, Local Govt Staff, General Public, Restaurant Owners/Managers, Board of Health, Students, Hospital Staff, Physicians, ARC Volunteers, Terrorism Task Force, First Responders-EMS, Law Enforcement, Fire Depts, PIOs, etc., Legal Counsels
Information & Material Provided	45	Healthcare and hospital providers
Region 5		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)	4,056	Army-Madigan; Public Health Managers/Administrators; Public Health staff; other Pierce County agencies; Regional Public Health staff
Risk Communication	293	
Smallpox	51,402	TPCHD Public Health Staff; Regional Public Health staff; Public; Hospital staff ; Law Enforcement; Sheriff's Office; Fire Departments; EMS; PIO's; Physicians; Clinic staff; PC Medical Society; Tribal Executives; FBI; Volunteers; Mental Health; Fire and law Enforcement Chiefs; Jail staff; Gambling Commission staff; County Agencies

Region 6 – Statistics Not Currently Available		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)		
Risk Communication		
Smallpox		
Region 7		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)		
Risk Communication	85	Hospital Staff, Fire Chief, PH Staff, EMT/Fire Dept Staff, Medical Staff, County Commissioner, Colville Tribe Member, Law Enforcement, School Staff
Smallpox	38	PH Staff
Region 8		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)		
ICS Training		
Risk Communication		
Smallpox	67	Public health staff – local and regional
Region 9		
General Topic/Category	*Participant Numbers*	*Role Categories Attending*
EP/BT Content (including CD Surveillance, BT Preparedness, BT Planning, BT/Chemical Agents. Terrorism)	166	Public Health staff – Local and Regional; Hospital staff; EMS; Clinic staff; University/College staff and students; Physicians; APIC members;
ICS Training	20	Public Health management and staff – Local and Regional
Risk Communication	8	Public Health staff – State and Regional; Community Health Center staff
Smallpox	223	Public Health staff – Local, Regional, State; Hospital staff; EMS Council; Clinic staff; Correctional Center staff; Wa. State University staff;

Public Health Emergency Preparedness & Response Regions



Regional Composition:

No.	Lead Health Jurisdiction	Counties
1	Snohomish Health District	Island, San Juan, Skagit, Snohomish*, Whatcom
2	Kitsap County Health District	Clallam, Jefferson, Kitsap*
3	Thurston County Health Department	Grays Harbor, Lewis, Mason, Pacific, Thurston*
4	Southwest Washington Health District	Clark*, Cowlitz, Skamania*, Wahkiakum
5	Tacoma-Pierce County Health Department	Pierce*
6	Public Health – Seattle & King County	King*
7	Chelan-Douglas Health District	Chelan*, Douglas*, Grant, Kittitas, Okanogan
8	Benton-Franklin Health District	Benton*, Franklin*, Klickitat, Walla Walla, Yakima
9	Spokane Regional Health District	Ferry, Lincoln, Pend Oreille, Spokane*, Stevens, Adams, Asotin, Columbia, Garfield, Whitman

***Lead County for the Region**